

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A computer-readable storage medium storing an  
[[An]] encapsulated document structure, comprising:

a document information file storing document information that is a substance of  
expression of a document;

an operating program file storing an operating program that materializes the document  
information, a limitation being given to the operating program by a security function when  
the operating program is interpreted and executed by a computer,

wherein the document information file and the operating program file are  
encapsulated as a single document, and

wherein said operating program is initiated by ~~canceled the limitation of the security~~  
~~function by~~ an external start program so as to limit interpretation and execution of said  
operating program when a program code has been altered.

Claim 2 (Currently Amended): The computer-readable storage medium encapsulated  
~~document structure~~ as claimed in claim 1, wherein the security function of said operating  
program file is controlled based on specific decryption key information for decrypting  
encrypted digital information.

Claim 3 (Currently Amended): The computer-readable storage medium encapsulated  
~~document structure~~ as claimed in claim 2, further comprising encapsulating means for  
encapsulating said decryption key information, said operating program file and said  
document information file into a single document.

Claim 4 (Currently Amended): The computer-readable storage medium ~~encapsulated document structure~~ as claimed in claim 3, wherein encapsulating means encapsulates said decryption information, said operating program file and said document information file into a single file.

Claim 5 (Currently Amended): The computer-readable storage medium ~~encapsulated document structure~~ as claimed in claim 3, wherein said decryption key information is signed and encrypted by a third party authority.

Claim 6 (Cancelled).

Claim 7 (Withdrawn-Currently Amended): The encapsulated document structure as claimed in claim ~~[[6]]~~ 3, wherein said operating program file is described by an intermediate language code, and runs by interpreting and executing the intermediate language code.

Claim 8 (Withdrawn-Currently Amended): The encapsulated document structure as claimed in claim ~~[[6]]~~ 3, wherein said operating program is decrypted and started by said start program in accordance with said decryption key information.

Claim 9 (Withdrawn-Currently Amended): The encapsulated document structure as claimed in claim ~~[[6]]~~ 3, wherein said operating program started by said start program operates within predetermined operation rights.

Claim 10 (Currently Amended): The computer-readable storage medium  
~~encapsulated document structure~~ as claimed in claim 3, wherein said decryption key  
information includes link information of URL.

Claim 11 (Currently Amended). The computer-readable storage medium  
~~encapsulated document structure~~ as claimed in claim 3, wherein a storage area of said  
operating program is described therein.

Claim 12 (Withdrawn-Currently Amended): The computer-readable storage medium  
~~encapsulated document structure~~ as claimed in claim 3, further comprising a start program  
file storing a start program that is interpreted and executed by said computer to start said  
encapsulated document file, wherein, when a file identifier of said encapsulated document  
file is changed, said operating program file is started by said start program.

Claim 13 (Withdrawn-Currently Amended): The computer-readable storage medium  
~~encapsulated document structure~~ as claimed in claim 12, further comprising signature  
determining means for determining whether the signature information in said encapsulated  
document is true or false, wherein, when said signature information is false, an unfair act  
process for performing a predetermined operation to avoid a problem caused by an unfair act  
performed with respect to the encapsulated document.

Claim 14 (Withdrawn-Currently Amended): The computer-readable storage medium  
~~encapsulated document structure~~ as claimed in claim 12, wherein said start program displays  
the signature information of said operating program to be started or said encapsulated  
document so as to cause a user to check the start.

Claim 15 (Withdrawn-Currently Amended): The computer-readable storage medium ~~encapsulated document structure~~ as claimed in claim 14, wherein said start program file includes signature retaining means for retaining signature information, and said start program compare the signature information retained by said signature retaining means with the signature information in said encapsulated document so as to eliminate a signature display to the user when the signature information retained by said signature retaining means matches the signature information in said encapsulated document.

Claim 16 (Withdrawn-Currently Amended): The computer-readable storage medium ~~encapsulated document structure~~ as claimed in claim 3, further comprising: a start program file storing a start program that is interpreted and executed by said computer; and an installation program file storing an installation program that installs said start program in said computer when a file identifier of said encapsulated document file is changed.

Claim 17 (Withdrawn-Currently Amended): The computer-readable storage medium ~~encapsulated document structure~~ as claimed in claim 16, further comprising signature determining means for determining whether the signature information in said encapsulated document is true or false, wherein, when said signature information is false, an unfair act process for performing a predetermined operation to avoid a problem caused by an unfair act performed with respect to the encapsulated document.

Claim 18 (Withdrawn-Currently Amended): The computer-readable storage medium ~~encapsulated document structure~~ as claimed in claim 16, wherein said start program displays

the signature information of said operating program to be started or said encapsulated document so as to cause a user to check the start.

Claim 19 (Withdrawn-Currently Amended): The computer-readable storage medium ~~encapsulated document structure~~ as claimed in claim 18, wherein said start program file includes signature retaining means for retaining signature information, and said start program compare the signature information retained by said signature retaining means with the signature information in said encapsulated document so as to eliminate a signature display to the user when the signature information retained by said signature retaining means matches the signature information in said encapsulated document.

Claim 20 (Withdrawn-Currently Amended): The computer-readable storage medium ~~encapsulated document structure~~ as claimed in claim 1, further comprising encapsulating means for encapsulating said document information file and said operating program file into a single file, wherein said operating program is started by an external start program and is limited in operation rights thereof.

Claim 21 (Withdrawn-Currently Amended): The computer-readable storage medium ~~encapsulated document structure~~ as claimed in claim 20, wherein said single file is signed and encrypted.

Claim 22 (Withdrawn-Currently Amended): The computer-readable storage medium ~~encapsulated document structure~~ as claimed in claim 20, wherein said operating program is limited in operation rights thereof based on signature information regarding said operating program.

Claim 23 (Withdrawn-Currently Amended): The computer-readable storage medium ~~encapsulated document structure~~ as claimed in claim 20, wherein an input and output of said operating program started by said start program is performed through an input and output library provided in said operating program.

Claim 24 (Withdrawn-Currently Amended): The computer-readable storage medium ~~encapsulated document structure~~ as claimed in claim 21, wherein said encapsulated document includes signature information, and said operating program starts said operating program in accordance with the signature information.

Claim 25 (Previously Presented): The encapsulated document structure as claimed in claim 1, wherein said document information file includes:

at least one contents file that serves as the substance of expression of the document;  
and

a document structure file specifying a structure of the at least one contents file and a display status of said document.

Claim 26 (Withdrawn-Currently Amended): The computer-readable storage medium ~~encapsulated document structure~~ as claimed in claim ~~[[6]]~~ 3, further comprising an icon file regarding an icon displayed on a display of said computer in accordance with substantive data of said document, wherein a selective designation of said icon is determined as an accessing operation to said document by said computer.

Claim 27 (Currently Amended): The computer-readable storage medium  
~~encapsulated document structure~~ as claimed in claim 25, further comprising a library file  
storing said contents file with an index indicating a storing location thereof, wherein said  
operating program file specifies said contents file according to said index.

Claim 28 (Withdrawn-Currently Amended): The computer-readable storage medium  
~~encapsulated document structure~~ as claimed in claim 25, further comprising a library file  
storing said contents file provided with a specific header, wherein said operating program file  
specifies said contents file according to said header.

Claim 29 (Withdrawn-Currently Amended): The computer-readable storage medium  
~~encapsulated document structure~~ as claimed in claim 25, wherein said document contents file  
is described by a general-purpose data description language.

Claim 30 (Withdrawn-Currently Amended): The computer-readable storage medium  
~~encapsulated document structure~~ as claimed in claim 29, wherein said data description  
language uses a tag to describe a structure of said contents file and an element specifying the  
display status on said document.

Claim 31 (Withdrawn-Currently Amended): The computer-readable storage medium  
~~encapsulated document structure~~ as claimed in claim 30, wherein said operating program file  
is provided in accordance with a file format specified by said contents file described using  
said tag.

Claim 32 (Currently Amended): The computer-readable storage medium  
~~encapsulated document structure~~ as claimed in claim 25, wherein said operating program file  
is provided with a part as minimum unit necessary for processing said contents file.

Claim 33 (Withdrawn-Currently Amended): The computer-readable storage medium  
~~encapsulated document structure~~ as claimed in claim 25, further comprising:

a file of a digital information display program for causing said contents file accessible  
on a display of said computer; and

a file of a functional operation program for performing a specific function without  
referring to digital information of said contents file.

Claim 34 (Withdrawn-Currently Amended): The computer-readable storage medium  
~~encapsulated document structure~~ as claimed in claim 33, wherein said digital information  
display program has a function to display a file specifying panel for displaying file specifying  
information that specifies said contents file in a selectable state, and a function to causing  
said contents file, which corresponds to a case where said file specifying information is  
selected, accessible on said display of said computer.

Claim 35 (Withdrawn-Currently Amended): The computer-readable storage medium  
~~encapsulated document structure~~ as claimed in claim 33, wherein said functional operation  
program has a function to display a function panel for function specifying information that  
specifies a predetermined function in a selectable state, and a function to perform said  
predetermined function that corresponds to a case where said function specifying information  
is selected.



Claim 36 (Withdrawn-Currently Amended): The computer-readable storage medium ~~encapsulated document structure~~ as claimed in claim 33, wherein said digital information display program has a scaling function to enlarge or reduce a displayed image based on said contents file.

Claim 37 (Withdrawn-Currently Amended): The computer-readable storage medium ~~encapsulated document structure~~ as claimed in claim 33, wherein said digital information display program has a view changing function to change a viewpoint when a displayed image based on said contents file is a three-dimensional image.

Claim 38 (Withdrawn-Currently Amended): The computer-readable storage medium ~~encapsulated document structure~~ as claimed in claim 33, wherein said digital information display program has a function, when a displayed image based on said contents file is a dynamic image, to display a static image extracted from the dynamic in said document in a selectable state, and a function to reproduce the dynamic image when the static image is selected.

Claim 39 (Withdrawn-Currently Amended): The computer-readable storage medium ~~encapsulated document structure~~ as claimed in claim 33, wherein said digital information display program has a function to display, when said contents file includes audio information, a reproduction panel for causing the audio information designatable, and a function to reproduce the audio information when a reproduction of said audio information is designated through said reproduction panel.

Claim 40 (Withdrawn-Currently Amended): The computer-readable storage medium ~~encapsulated document structure~~ as claimed in claim 39, wherein said digital information display program has a function to display, when a reproduction of said audio information is designated through said reproduction panel, text information corresponding to said audio information.

Claim 41 (Currently Amended): The computer-readable storage medium ~~encapsulated document structure~~ as claimed in claim 1, further comprising a feature amount retaining file retaining an encrypted feature amount regarding ~~a size of~~ said program file, the feature amount retaining file being encapsulated into said single file.

Claim 42 (Currently Amended): The computer-readable storage medium ~~encapsulated document structure~~ as claimed in claim 41, wherein said feature amount retaining file also retains an encrypted feature amount regarding ~~a size of~~ said document information file.

Claim 43 (Currently Amended): The computer-readable storage medium ~~encapsulated document structure~~ as claimed in claim 41, wherein said feature amount retaining file retains decryption key information used for decrypting the encrypted feature amount regarding ~~said size of~~ said operating program file.

Claim 44 (Currently Amended): The computer-readable storage medium ~~encapsulated document structure~~ as claimed in claim 41, wherein said feature amount retaining file retains location information which indicates decryption key information used

for decrypting the encrypted feature amount regarding ~~said size of~~ said operating program file.

Claim 45 (Currently Amended): The computer-readable storage medium ~~encapsulated document structure~~ as claimed in claim 43, wherein a different set of said decryption key information is related to each operating program file.

Claim 46 (Currently Amended): The computer-readable storage medium ~~encapsulated document structure~~ as claimed in claim 44, wherein a different set of said decryption key information is related to each operating program file.

Claim 47 (Currently Amended): The computer-readable storage medium ~~encapsulated document structure~~ as claimed in claim 41, wherein the feature amount regarding said size of said operating program file is encrypted by a public key encryption method.

Claim 48 (Currently Amended): The computer-readable storage medium ~~encapsulated document structure~~ as claimed in claim 43, wherein said decryption key information is signed and encrypted by a third party authentication authority.

Claim 49 (Currently Amended): The computer-readable storage medium ~~encapsulated document structure~~ as claimed in claim 41, wherein the feature amount regarding ~~said size of~~ said operating program file is encrypted by a private key encryption method.

Claim 50 (Currently Amended): The computer-readable storage medium  
~~encapsulated document structure~~ as claimed in claim 41, further comprising a feature amount  
verification program for performing a verification of a tamper on said operating program file,  
the feature amount verification program being encapsulated into said single file.

Claim 51 (Currently Amended): The computer-readable storage medium  
~~encapsulated document structure~~ as claimed in claim 1, wherein a feature amount of ~~a size of~~  
the operating program in said operating program file is stored outside said single document.

Claim 52 (Currently Amended): The computer-readable storage medium  
~~encapsulated document structure~~ as claimed in claim 51, wherein the feature amount  
regarding ~~said size of~~ said operating program file is encrypted by a public key encryption  
method.

Claim 53 (Currently Amended): The computer-readable storage medium  
~~encapsulated document structure~~ as claimed in claim 51 wherein the feature amount  
regarding ~~said size of~~ said operating program file is encrypted by a private key encryption  
system.

Claim 54 (Currently Amended): The computer-readable storage medium  
~~encapsulated document structure~~ as claimed in claim 51, further comprising a feature amount  
verification program for performing a verification of a tamper on said operating program file,  
the feature amount verification program being encapsulated into said single file.

Claim 55 (Currently Amended): A computer-readable storage medium storing an  
[[An]] encapsulated document structure comprising:

a document information file storing contents information that is a substance of  
expression on a document;

location information indicating a location where an operating program file is stored,  
the operating program file storing an operating program for materializing the document  
information file; and

a feature amount retaining file retaining an encrypted feature amount regarding a size  
of said operating program file,

wherein said document information file, said location information and said feature  
amount retaining file are encapsulated into a single file, and

said operating program is initiated by an external start program so as to limit  
interpretation and execution of said operating program when a program code has been altered  
~~canceled a limitation of a security function, that had been given to the operating program~~  
~~beforehand, by an external start program.~~

Claim 56 (Currently Amended): The computer-readable storage medium  
~~encapsulated document structure~~ as claimed in claim 55, wherein said feature amount  
retaining file also retains an encrypted feature amount regarding ~~a size of~~ said document  
information file.

Claim 57 (Currently Amended): The computer-readable storage medium  
~~encapsulated document structure~~ as claimed in claim 55, wherein said feature amount  
retaining file retains decryption key information used for decrypting the encrypted feature  
amount regarding ~~said size of~~ said operating program file.

Claim 58 (Currently Amended): The computer-readable storage medium  
~~encapsulated document structure~~ as claimed in claim 55, wherein said feature amount  
retaining file retains location information which indicates decryption key information used  
for decrypting the encrypted feature amount regarding ~~said size of~~ said operating program  
file.

Claim 59 (Currently Amended): The computer-readable storage medium  
~~encapsulated document structure~~ as claimed in claim 57, wherein a different set of said  
decryption key information is related to each operating program file.

Claim 60 (Currently Amended): The computer-readable storage medium  
~~encapsulated document structure~~ as claimed in claim 58, wherein a different set of said  
decryption key information is related to each operating program file.

Claim 61 (Currently Amended): The computer-readable storage medium  
~~encapsulated document structure~~ as claimed in claim 55, wherein the feature amount  
regarding ~~said size of~~ said operating program file is encrypted by a public key encryption  
method.

Claim 62 (Currently Amended): The computer-readable storage medium  
~~encapsulated document structure~~ as claimed in claim 57, wherein said decryption key  
information is signed and encrypted by a third party authentication authority.

Claim 63 (Currently Amended): The computer-readable storage medium ~~encapsulated document structure~~ as claimed in claim 55, wherein the feature amount regarding ~~said size of~~ said operating program file is encrypted by a private key encryption system.

Claim 64 (Currently Amended): The computer-readable storage medium ~~encapsulated document structure~~ as claimed in claim 55, further comprising a feature amount verification program for performing a verification of a tamper on said operating program file, the feature amount verification program being encapsulated into said single file.

Claim 65 (Currently Amended): A computer-readable storage medium storing an ~~[[An]]~~ encapsulated document structure comprising:

document information file storing contents information that is a substance of expression on a document; and

location information indicating a location where an operating program file containing an operating program for materializing the document information file is stored,

wherein the document information file and the location information are encapsulated into a single file, a feature amount regarding a size of the operating program file is stored outside said single file, and

said operating program is initiated by ~~canceled a limitation of a security function,~~ ~~that had been given to the operating program beforehand,~~ by an external start program so as to limit interpretation and execution of said operating program when a program code has been altered.

Claim 66 (Currently Amended): The computer-readable storage medium  
~~encapsulated document structure~~ as claimed in claim 65, wherein the feature amount  
regarding ~~said size of~~ said operating program file is encrypted by a public key encryption  
method.

Claim 67 (Currently Amended): The computer-readable storage medium  
~~encapsulated document structure~~ as claimed in claim 66, wherein decryption key information  
used for decrypting the encrypted said operating program file is signed and encrypted by a  
third party authentication authority.

Claim 68 (Currently Amended): The computer-readable storage medium  
~~encapsulated document structure~~ as claimed in claim 65, wherein the feature amount  
regarding ~~said size of~~ said operating program file is encrypted by a private key encryption  
system.

Claim 69 (Currently Amended): The computer-readable storage medium  
~~encapsulated document structure~~ as claimed in claim 65, further comprising a feature amount  
verification program for performing a verification of a tamper on said operating program file,  
the feature amount verification program being encapsulated into said single file.

Claim 70 (Withdrawn): A document file producing apparatus producing an  
electronic document file having an encapsulated document structure, said encapsulated  
document structure comprising:

a document information file storing document information that is a substance of  
expression of a document; and



an operating program file storing an operating program that materializes the document information, a limitation being given to the operating program by a security function when the operating program is interpreted and executed by a computer,

wherein the document information file and the operating program file are encapsulated as a single document.

Claim 71 (Withdrawn): The document file producing apparatus as claimed in claim 70, wherein said operating program file is produced and distributed by an operating program provider beforehand.

Claim 72 (Withdrawn): The document file producing apparatus as claimed in claim 70, wherein the security function of said operating program file is controlled based on specific decryption key information for decrypting encrypted digital information.

Claim 73 (Withdrawn): The document file producing apparatus as claimed in claim 72, wherein said specific decryption key information is produced and distributed by an operating program provider beforehand.

Claim 74 (Withdrawn): An encapsulated document producing and editing apparatus comprising:

decryption key information provided beforehand;

an operating program file that is decrypted from the decryption key information; and

encapsulated document producing and editing means having user interface means for producing and editing a document information file in accordance with a user operation and

encapsulating means for encapsulating the produced document information file, said decryption key information and said operating program file into a single file.

Claim 75 (Withdrawn): An encapsulated document producing and editing apparatus comprising:

an operating program file provided beforehand;

encapsulated document producing and editing means having user interface means for producing and editing a document information file in accordance with a user operation and encapsulating means for encapsulating the produced document information file and said operating program file into a single file; and

decryption means for decrypting the encapsulated single file.

Claim 76 (Withdrawn): An encapsulated document producing and editing apparatus comprising:

encapsulated document producing and editing means having user interface means for producing and editing a document information file in accordance with a user operation;

an operating program file provided beforehand; and

decryption means for decrypting the produced document information file and said operating program file,

wherein said encapsulated document producing and editing means has encapsulating means for encapsulating the encrypted document information file and said operating program file into a single file.

Claim 77 (Withdrawn): A start program for starting an operating program file provided in an encapsulated document comprising: decryption key information for decrypting

encrypted digital information; the operating program file that is decrypted in accordance with the decryption key information; document information file that is materialized on a computer by the decrypted operating program; and encapsulating means for encapsulating said decryption key information, said operating program file and said document information file into a single file, said start program comprising:

reading means for reading the encrypted decryption key information and said operating program file from said encapsulated document file;

decryption means for decrypting said decryption key information using a public key provided by a third party authentication authority, and decrypting said operating program using the decrypted decryption key information; and

operating program starting means for starting said decrypted operating program.

Claim 78 (Withdrawn): The start program as claimed in claim 77, further comprising public key information provided by said third party authentication authority.

Claim 79 (Withdrawn): The start program as claimed in claim 77, further comprising signature determining means for determining whether signature information in said encapsulated document is true or false so as to perform a process for preventing a problem caused by an unfair act that has been applied on said encapsulated document file.

Claim 80 (Withdrawn): The start program as claimed in claim 77, further comprising means for displaying the signature information of said operating program or said encapsulated document to be started on a display of a computer so as to request a user to check a start of said operating program.

Claim 81 (Withdrawn): The start program as claimed in claim 80, further comprising signature information retaining means for retaining signature information so as to compare the signature information retained by said signature information retaining means with signature information provided in said encapsulated document so that a display of signature is omitted when the signature information retained by said signature information retaining means matches the signature information provided in said encapsulated document.

Claim 82 (Withdrawn): An encapsulated document producing apparatus comprising:  
document information file acquisition means for acquiring a document information file storing contents information that is a substance of expression regarding a document;  
operating program file acquisition means for acquiring an operation program file storing an operating program, which is interpreted and executed by a computer, for materializing said document information file acquired by said document information file acquisition means;

feature amount computing means for computing a feature amount of said operating program file;

feature amount retaining file producing means for encrypting the feature amount of said operating program file computed by said feature amount computing means, and saving the encrypted feature amount in a feature amount retaining file; and

encapsulating means for encapsulating said document information file, said operating program file and said feature amount retaining file into a single document.

Claim 83 (Withdrawn): The encapsulated document producing apparatus as claimed in claim 82, further comprising document information feature amount computing means for computing a feature amount of said document information file so as to encrypt the computed

feature amount of said document information file with encryption key information and save the encrypted feature amount in said feature amount retaining file.

Claim 84 (Withdrawn): A program tamper verification method performed by an information processing unit for verifying a tamper on an operating program file that materializes a document information file that is a substance of expression regarding a document, the operating program file and the document information file are encapsulated into an encapsulated document file, the program tamper verification method comprising the steps of:

computing a feature amount of said operating program file in said encapsulated document file when materializing said document information file;

decrypting an encrypted feature amount of said operating program file that was been retained;

comparing the decrypted feature amount of said operating program file with the computed feature amount of said operating program file;

limiting materialization of said document information file performed by said operating program file when the decrypted feature amount of said operating program file does not match the computed feature amount of said operating program file.

Claim 85 (Withdrawn): A program tamper verification method performed by an information processing unit for verifying a tamper on an operating program file that materializes a document information file that is a substance of expression regarding a document, the operating program file and the document information file are encapsulated into an encapsulated document file, the program tamper verification method comprising the steps of:

computing a feature amount of said operating program file stored at a location indicated by location information retained in said encapsulated document file when materializing said document information file;

decrypting a decrypted feature amount of said operating program previously retained; comparing the decrypted feature amount of said operating program file with the computed feature amount of said operating program file;

limiting materialization of said document information file performed by said operating program file when the decrypted feature amount of said operating program file does not match the computed feature amount of said operating program file.

Claim 86 (Withdrawn): A tamper verification apparatus comprising:

reading means for reading an encapsulated document file having an encapsulated document structure; and

tamper verification means for performing verification of a tamper on an operating program stored in said encapsulated document file based on a feature amount of said operating program file that materializes a document information file stored in said encapsulated document file and read by said reading means,

wherein said encapsulated document structure comprises the document information file, the operating program file and a feature amount retaining file that retains an encrypted feature amount of said operating program.

Claim 87 (Withdrawn): The tamper verification apparatus as claimed in claim 86, wherein said tamper verification means includes:

decryption means for decrypting the encrypted feature amount of said operating program file retained by said feature amount retaining file stored in said encapsulated document file and read by said reading means;

feature amount computation means for computing a feature amount of said operation program file stored in said encapsulated document file; and

tamper verification execution means for performing the verification of a tamper on said operating program file based on the computed feature amount of said operating program file computed by said feature amount computation means and the decrypted feature amount of said operating program file decrypted by said decryption means.

Claim 88 (Withdrawn): The tamper verification apparatus as claimed in claim 86, wherein said tamper verification means includes:

feature amount computation means for computing a feature amount of said operating program file stored in said encapsulated document file read by said reading means; and

tamper verification execution means for performing the verification of a tamper on said operating program file based on the computed feature amount of said operating program file computed by said feature amount computation means and a feature amount of said operating program file stored in a start program.

Claim 89 (Withdrawn): The tamper verification apparatus as claimed in claim 86, wherein said tamper verification means includes:

feature amount computation means for computing a feature amount of said operating program file stored in said encapsulated document file read by said reading means;

encryption means for encrypting the computed feature amount of said operating program file computed by said feature amount computation means; and

tamper verification execution means for performing the verification of a tamper on said operating program file based on the encrypted feature amount of said operating program file encrypted by said encryption means and a decrypted feature amount of said operating program file retained in a feature amount retaining file stored in said encapsulated document file.

Claim 90 (Withdrawn): The tamper verification apparatus as claimed in claim 86, wherein said tamper verification means includes:

feature amount computation means for computing a feature amount of a feature amount verification program file stored in said encapsulated document file and read by said reading means;

determining means for determining whether or not to execute said feature amount verification program file based on the computed feature amount of said feature amount verification program file computed by said feature amount computation means and a feature amount of said feature amount verification program file stored in a start program; and

tamper verification execution means for performing verification of a tamper on said operating program file when said feature amount verification program file is determined by said determining means to be executed.

Claim 91 (Withdrawn): An encapsulated document producing process program causing a computer to perform the functions of:

acquiring a document information file installed in said computer, the document information file containing contents information that is a substance of expression regarding a document;



acquiring an operating program file that is interpreted and executed by said computer so as to materialize said document information file acquired by said function of acquiring the document information file;

computing a feature amount of said operating program file;

encrypting the feature amount of said operating program file computed by said function of computing the feature amount by using decryption key information;

saving the decrypted feature amount of said operating program file in a feature amount retaining file; and

encapsulating said document information file, said operating program file and said feature amount retaining file into a single document file.

Claim 92 (Withdrawn): The encapsulated document producing process program as claimed in claim 91, further comprising the functions of:

causing said computer to perform a function of computing the feature amount of said document information file;

decrypting the computed feature amount of said document information file by using decryption key information; and

saving the decrypted feature amount of said document information file in said feature amount retaining file.

Claim 93 (Withdrawn): A processor readable storage medium storing an encapsulated document producing process program causing a computer to perform the functions of:

acquiring a document information file installed in said computer, the document information file containing contents information that is a substance of expression regarding a document;

acquiring an operating program file that is interpreted and executed by said computer so as to materialize said document information file acquired by said function of acquiring the document information file;

computing a feature amount of said operating program file;

encrypting the feature amount of said operating program file computed by said function of computing the feature amount by using decryption key information;

saving the decrypted feature amount of said operating program file in a feature amount retaining file; and

encapsulating said document information file, said operating program file and said feature amount retaining file into a single document file.

Claim 94 (Withdrawn): The processor readable storage medium as claimed in claim 93, wherein said encapsulated document producing process program further comprising the functions of:

causing said computer to perform a function of computing the feature amount of said document information file;

decrypting the computed feature amount of said document information file by using decryption key information; and

saving the decrypted feature amount of said document information file in said feature amount retaining file.

Claim 95 (Withdrawn): A start program causing a computer to perform the functions of:

reading an encapsulated document file having an encapsulated document structure;

and

performing verification of a tamper on an operating program stored in said encapsulated document file based on a feature amount of said operating program file that materializes a document information file stored in said encapsulated document file and read by said reading means,

wherein said encapsulated document structure comprises the document information file, the operating program file and a feature amount retaining file that retains an encrypted feature amount of said operating program.

Claim 96 (Withdrawn): The start program as claimed in claim 95, wherein said function of performing the verification includes the function of:

decrypting the encrypted feature amount of said operating program file retained by said feature amount retaining file stored in said encapsulated document file and read by said function of reading;

computing a feature amount of said operation program file stored in said encapsulated document file; and

performing the verification of a tamper on said operating program file based on the computed feature amount of said operating program file computed by said feature amount computation means and the decrypted feature amount of said operating program file decrypted by said decryption means.

Claim 97 (Withdrawn): The start program as claimed in claim 95, wherein said function of performing verification includes the function of:

computing a feature amount of said operating program file stored in said encapsulated document file read by said function of reading; and

performing the verification of a tamper on said operating program file based on the computed feature amount of said operating program file computed by said function of computing the feature amount and a feature amount of said operating program file stored in said start program.

Claim 98 (Withdrawn): The start program as claimed in claim 95, wherein said function of performing verification includes the function of:

computing a feature amount of said operating program file stored in said encapsulated document file read by said function of reading;

encrypting the computed feature amount of said operating program file computed by said function of computing the feature amount; and

performing the verification of a tamper on said operating program file based on the encrypted feature amount of said operating program file encrypted by said function of encrypting and a decrypted feature amount of said operating program file retained in a feature amount retaining file stored in said encapsulated document file.

Claim 99 (Withdrawn): The start program as claimed in claim 95, wherein said function of performing verification includes the function of:

computing a feature amount of a feature amount verification program file stored in said encapsulated document file and read by said function of reading;

determining whether or not to execute said feature amount verification program file based on the computed feature amount of said feature amount verification program file computed by said function of computing the feature amount and a feature amount of said feature amount verification program file stored in said start program; and

performing verification of a tamper on said operating program file when said feature amount verification program file is determined by said determining means to be executed.

Claim 100 (Withdrawn): A processor readable storage medium storing a start program causing a computer to perform the functions of:

reading an encapsulated document file having an encapsulated document structure;  
and

performing verification of a tamper on an operating program stored in said encapsulated document file based on a feature amount of said operating program file that materializes a document information file stored in said encapsulated document file and read by said reading means,

wherein said encapsulated document structure comprises the document information file, the operating program file and a feature amount retaining file that retains an encrypted feature amount of said operating program.

Claim 101 (Withdrawn): The processor readable storage medium as claimed in claim 100, wherein said function of performing the verification includes the function of:

decrypting the encrypted feature amount of said operating program file retained by said feature amount retaining file stored in said encapsulated document file and read by said function of reading;

computing a feature amount of said operation program file stored in said encapsulated document file; and

performing the verification of a tamper on said operating program file based on the computed feature amount of said operating program file computed by said feature amount computation means and the decrypted feature amount of said operating program file decrypted by said decryption means.

Claim 102 (Withdrawn): The processor readable storage medium as claimed in claim 100, wherein said function of performing the verification includes the function of:

computing a feature amount of said operating program file stored in said encapsulated document file read by said function of reading; and

performing the verification of a tamper on said operating program file based on the computed feature amount of said operating program file computed by said function of computing the feature amount and a feature amount of said operating program file stored in said start program.

Claim 103 (Withdrawn): The processor readable storage medium as claimed in claim 100, wherein said function of performing the verification includes the function of:

computing a feature amount of said operating program file stored in said encapsulated document file read by said function of reading;

encrypting the computed feature amount of said operating program file computed by said function of computing the feature amount; and

performing the verification of a tamper on said operating program file based on the encrypted feature amount of said operating program file encrypted by said function of

encrypting and a decrypted feature amount of said operating program file retained in a feature amount retaining file stored in said encapsulated document file.

Claim 104 (Withdrawn): The processor readable storage medium as claimed in claim 100, wherein said function of performing the verification includes the function of:

computing a feature amount of a feature amount verification program file stored in said encapsulated document file and read by said function of reading;

determining whether or not to execute said feature amount verification program file based on the computed feature amount of said feature amount verification program file computed by said function of computing the feature amount and a feature amount of said feature amount verification program file stored in said start program; and

performing verification of a tamper on said operating program file when said feature amount verification program file is determined by said determining means to be executed.

Claim 105 (Currently Amended): A computer-readable storage medium storing an ~~[[An]]~~ electronic document file comprising:

a plurality of operating programs and operating program use information provided by an operating program provider; and

a contents file and contents use information produced by said operating program provider or a document producer and an operating program is initiated by an external start program as to limit interpretation and execution of said operating program when a program code has been altered ~~canceled the limitation of a security function, that had been given to the operating program beforehand, by an external start program.~~

Claim 106 (Currently Amended): The computer-readable storage medium ~~electronic document file~~ as claimed in claim 105, wherein at least one of said operating programs is an operation verification program that verifies other operating programs based on said operating program use information.

Claim 107 (Currently Amended): The computer-readable storage medium ~~electronic document file~~ as claimed in claim 105, wherein at least one of said operating programs is a contents verification program that limits a use of said contents file based on said contents file use information.

Claim 108 (Currently Amended): The computer-readable storage medium ~~electronic document file~~ as claimed in claim 105, wherein at least one of said operating programs is an operation verification program that operates other operating programs based on said operating program use information, and at least one of said operating programs is a contents verification program that limits a use of said contents file based on said contents file use information.

Claim 109 (Currently Amended): The computer-readable storage medium ~~electronic document file~~ as claimed in claim 106, wherein said operation verification program verifies a tamper on said operating programs and said operating program use information.

Claim 110 (Currently Amended): The computer-readable storage medium ~~electronic document file~~ as claimed in claim 106, wherein said operation verification program limits an operation of said operating programs.



Claim 111 (Currently Amended): The computer-readable storage medium ~~electronic document file~~ as claimed in claim 107, wherein said contents verification program verifies a tamper on said contents file and said contents file use information.

Claim 112 (Currently Amended): The computer-readable storage medium ~~electronic document file~~ as claimed in claim 107, wherein said contents verification program limits a use of said contents use file.

Claim 113 (Currently Amended): The computer-readable storage medium ~~electronic document file~~ as claimed in claim 106, wherein, when safety of said operating programs is not guaranteed by said operation verification program, a user of said electronic document file is notified of the fact that safety of said operating programs is not guaranteed.

Claim 114 (Currently Amended): The computer-readable storage medium ~~electronic document file~~ as claimed in claim 105, wherein said operating programs, said operating program use information, said contents file and said contents file use information are encapsulated into a single file.

Claim 115 (Withdrawn): An electronic document file producing apparatus comprising:

reading means for reading a plurality of operating programs and operating program use information;

contents file producing means for producing a contents file and contents file use information; and

information producing means for producing information to be stored in an electronic document file,

wherein said electronic document file comprises:

a plurality of operating programs and operating program use information provided by an operating program provider; and

a contents file and contents use information produced by said operating program provider or a document producer.

Claim 116 (Withdrawn): The electronic document file producing apparatus as claimed in claim 115, wherein said contents file producing means causes one of said operating programs of said electronic document file to be executed.

Claim 117 (Withdrawn): The electronic document file producing apparatus as claimed in claim 115, further comprises operating program adding means for adding said plurality of operating programs and said operating program use information provided by the operating program provider to said electronic document file based on said contents file and said contents file use information produced by said contents file producing means.

Claim 118 (Withdrawn): The electronic document file producing apparatus as claimed in claim 116, further comprises operating program adding means for adding said plurality of operating programs and said operating program use information provided by the operating program provider to said electronic document file based on said contents file and said contents file use information produced by said contents file producing means.

Claim 119 (Withdrawn): An encapsulated document structure comprising:

an operating program read by a provided-side computer connected to a network so as to cause the provided-side computer to perform various functions;

use information regarding an encapsulated document provided to said provided-side computer through said network; and

sending location information for sending said use information to a providing-side computer connected to said network,

wherein said operating program, said use information and said sending location information are encapsulated into a single document, and said operating program includes use information transmitting program for transmitting said use information according to said sending location information at a predetermined timing.

Claim 120 (Withdrawn): The encapsulated document structure as claimed in claim 119, wherein and said operating program includes:

a contents information display program for displaying contents information that is a substance of expression on a document;

a permission information reception program for receiving permission information regarding permission of display of said contents information from said provided-side computer through said network; and

a contents information display program for displaying said contents information in accordance with said permission information.

Claim 121 (Withdrawn): The encapsulated document structure as claimed in claim 120, wherein said permission information is encrypted feature amount information of said contents information; said operating program further includes a feature amount determination program for determining whether or not the encrypted feature amount information is equal to

predetermined feature amount; and said contents information display program displays said contents information in accordance with a result of determination of said feature amount determination program.

Claim 122 (Withdrawn): The encapsulated document structure as claimed in claim 121, wherein said feature amount determination program determines whether or not the encrypted feature amount information of said contents information is equal to computed feature amount information computed from said contents information existing in said encapsulated document, and said contents information display program displays said contents information when the encrypted feature amount information of said contents information is determined by said feature amount determination program equal to the computed feature amount information computed from said contents information existing in said encapsulated document.

Claim 123 (Withdrawn): An encapsulated document structure comprising:  
a storage area where contents information, which is a substance of expression on a document, is stored;  
an operating program read by a provided-side computer connected to a network so as to cause the provided-side computer to perform various functions; and  
use information regarding an encapsulated document provided to said provided-side computer through said network,  
wherein said storage area, said operating program and said use information are encapsulated into a single document, and said operating program includes an encrypted contents information display program for displaying said contents information stored in said storage area.

Claim 124 (Withdrawn): An encapsulated document processing apparatus,  
comprising:

request information receiving means for receiving request information from a  
provided-side computer through a network;

encapsulated document producing means for producing an encapsulated document  
having a predetermined encapsulated document structure in accordance with the request  
information received by said request information receiving means; and

encapsulated document transmitting means for sending the encapsulated document  
produced by said encapsulated document producing means to said provided-side computer  
through said network,

wherein said predetermined encapsulated document structure comprises:

an operating program read by said provided-side computer connected to a network so  
as to cause said provided-side computer to perform various functions;

use information regarding an encapsulated document provided to said provided-side  
computer through said network; and

sending location information for sending said use information to a providing-side  
computer connected to said network,

wherein said operating program, said use information and said sending location  
information are encapsulated into a single document, and said operating program includes use  
information transmitting program for transmitting said use information according to said  
sending location information at a predetermined timing.

Claim 125 (Withdrawn): The encapsulated document processing apparatus as  
claimed in claim 124, further comprising:

charge information producing means for producing charge information of use fee of said encapsulated document by computing the use fee in accordance with said request information received by said request information receiving means;

charge information transmitting means for transmitting the charge information of the use fee produced by said charge information producing means to said provided-side computer through said network; and

payment information receiving means for receiving payment information on the use fee from said provided-side computer through said network,

wherein said encapsulated document transmitting means sends said encapsulated document produced by said encapsulated document producing means to said provided-side computer through network when the payment information on the use fee is received by said payment information receiving means.

Claim 126 (Withdrawn): The encapsulated document processing apparatus as claimed in claim 124, wherein said encapsulated document producing means includes:

operating program producing means for producing an operating program in accordance with said request information received by said request information receiving means, the operating program being read by said provided-side computer and causing provided-side computer to perform various functions;

use information setting means for setting use information regarding said encapsulated document provided to said provided-side computer through said network; and

encapsulating means for encapsulating said operating program produced by said operating program producing means and said use information set by said use information setting means into a single document.

Claim 127 (Withdrawn): The encapsulated document processing apparatus as claimed in claim 124, wherein said encapsulated document producing means includes:

operating program producing means for producing an operating program in accordance with said request information received by said request information receiving means, the operating program being read by said provided-side computer and causing provided-side computer to perform various functions;

encryption key producing means for producing an encryption key owned by the providing-side;

operating program encryption means for encrypting said operating program with the encryption key produced by said encryption key producing means;

use information setting means for setting use information regarding said encapsulated document provided to said provided-side computer through said network; and

encapsulating means for encapsulating said operating program encrypted by said operating program encrypting means and said use information set by said use information setting means into a single file.

Claim 128 (Withdrawn): An encapsulated document processing apparatus, comprising:

use information receiving means for receiving use information from a provided-side computer through a network;

charge information producing means for producing charge information of use fee of said encapsulated document by computing the use fee in accordance with said request information received by said use information receiving means;

charge information transmitting means for transmitting the charge information of the use fee produced by said charge information producing means to said provided-side computer through said network;

payment information receiving means for receiving payment information on the use fee from said provided-side computer through said network; and

permission information transmitting means for transmitting permission information to said provided-side computer through said network when the charge information on the use fee is received by said payment information receiving means, the permission information for permitting and execution of a saving process of contents information that is a substance of expression on a document.

Claim 129 (Currently Amended): A computer-readable storage medium storing an  
[[An]] encapsulated document structure, comprising:

contents information that is a substance of expression on a document;

an operating program read by an accessing-side computer connected to a network, the operating program causing the accessing-side computer to perform various functions based on said operating program; and

sending-location information to be used by the accessing-side computer to send information to a providing-side computer connected to said accessing-side computer through said network,

wherein said contents information, said operating program and said sending-location information are encapsulated into a single document, and

wherein said operating program includes:

an operation processing program of which a operation process on said contents information is limited based on authority information;



a limitation cancellation program for canceling a limitation in the operation process of said operation processing program by sending various kinds of information based on said sending-location information; and

said operating program is initiated by an external start program as to limit interpretation and execution of said operating program when a program code has been altered  
~~canceling the limitation of the authority information by an external start program.~~

Claim 130 (Currently Amended): The computer-readable storage medium  
~~encapsulated document structure~~ as claimed in claim 129, wherein said contents information is encrypted, and said limitation cancellation program acquires decryption key information for decrypting the encrypted contents document based on said sending-location information through said network so as to decrypt the encrypted contents information based on the decryption key information acquired.

Claim 131 (Currently Amended): The computer-readable storage medium  
~~encapsulated document structure~~ as claimed in claim 130, wherein decryption key producing information request information is encapsulated into said single document together with said contents information, said operating program and said sending-location information, the decryption key producing information request information configured to request said providing-side computer to send decryption key producing information necessary for producing said decryption key information, and

said limitation cancellation program includes:

a decryption key producing information requesting program for requesting said decryption key producing information by sending said decryption key producing information

request information to said providing-side computer through said network based on said sending-location information;

decryption key producing information reception program for receiving said decryption key producing information from said providing-side computer through said network;

a decryption key producing program for producing said decryption key information based on said decryption key producing information received by said decryption key producing information reception program; and

a decryption program for decrypting the encrypted contents information based on said decryption key information produced by said decryption key producing program.

Claim 132 (Withdrawn): An encapsulated document processing apparatus, comprising:

storage area acquisition means for acquiring a storage area where contents information, which is a substance of expression on a document, is saved;

request information receiving means for receiving request information through from a provided-side computer through a network;

operating program producing means for producing and operating program in accordance with said request information received by said request information receiving means, the operating program being read by said an accessing-side computer and causing said accessing-side computer to perform various kinds of functions;

sending location information setting means for setting sending location information for sending various kinds of information to a providing-side computer through said network;

encapsulation means for encapsulating said storage area, said operating program produced by said operating program producing program and said sending location

information set by said sending location information setting means into a single document;  
and

encapsulated document transmitting means for transmitting the encapsulated document produced by said encapsulating means to said provided-side computer through said network,

wherein said operating program producing means includes:

an operation processing program of which operation process on said contents information is limited based on authority information; and

a limitation cancellation program for canceling the limitation in the operation process of said operating program by sending various kinds of information based on said sending location information.

Claim 133 (Withdrawn): The encapsulated document processing apparatus as claimed in claim 132, further comprising contents information encryption means for encrypting said contents information, which is stored in said storage area acquired by said storage area acquisition means, according to encryption key information as said authority information, wherein said encapsulated document transmitting means transmits said encapsulated document, which has said contents information encrypted by said contents information encryption means and stored in said storage area, to said provided-side computer or said accessing-side computer through said network.

Claim 134 (Withdrawn): The encapsulated document processing apparatus as claimed in claim 133, wherein said limitation cancellation program includes:

a decryption key producing information request program for requesting decryption key producing information necessary for producing decryption key information for

decrypting said contents information, a request being sent to said providing-side computer through said network based on said sending location information;

a decryption key producing information reception program for receiving said decryption key producing information from said providing-side computer through said network;

a decryption key producing program for producing said decryption key information based on said decryption key producing information received by said decryption key producing information reception program; and

decryption program for decrypting said encrypted contents information based on said decryption key information produced by said decryption key producing program.

Claim 135 (Withdrawn): An encapsulated document processing apparatus, comprising:

decryption key request information receiving means for receiving decryption key request information from an accessing-side computer through a network, the decryption key request for requesting decryption key information for decrypting encrypted contents information, which is a substance of expression on a document;

decryption key producing means for producing said decryption key information based on said decryption key request information received by said decryption key request information receiving means; and

decryption key information transmitting means for transmitting said decryption key information, which is produced by said decryption key producing means, to said accessing-side computer through said network.

Claim 136 (Withdrawn): The encapsulated document processing apparatus as claimed in claim 135, further comprising fee-charging means for charging a use fee of said contents information to said accessing-side computer when said decryption key information is transmitted by said decryption key information transmitting means.

Claim 137 (Withdrawn): An encapsulated document processing apparatus, comprising;

decryption key production request information receiving means for receiving decryption key production information request information from a providing-side computer through a network, the decryption key production information request information for requesting decryption key producing information necessary for producing decryption key information for decrypting encrypted contents information, which is a substance of expression regarding a document;

decryption key producing information producing means for producing said decryption key producing information based on said decryption key producing information request information received by said decryption key production request information receiving means;

decryption key producing information transmitting means for transmitting said decryption key producing information, which is produced by said decryption key producing information producing on means, to an accessing-side computer through said network; and

fee-charging means for charging a use fee of said contents information to said accessing-side computer when said decryption key producing information is transmitted by said decryption key producing information transmitting means.

Claim 138 (New): The computer-readable storage medium as claimed in Claim 1, wherein the encapsulated document structure also includes a location information file which

indicates a location where the operating program is stored, and the document information file, the location information file, and the operating program file are encapsulated as a single document.